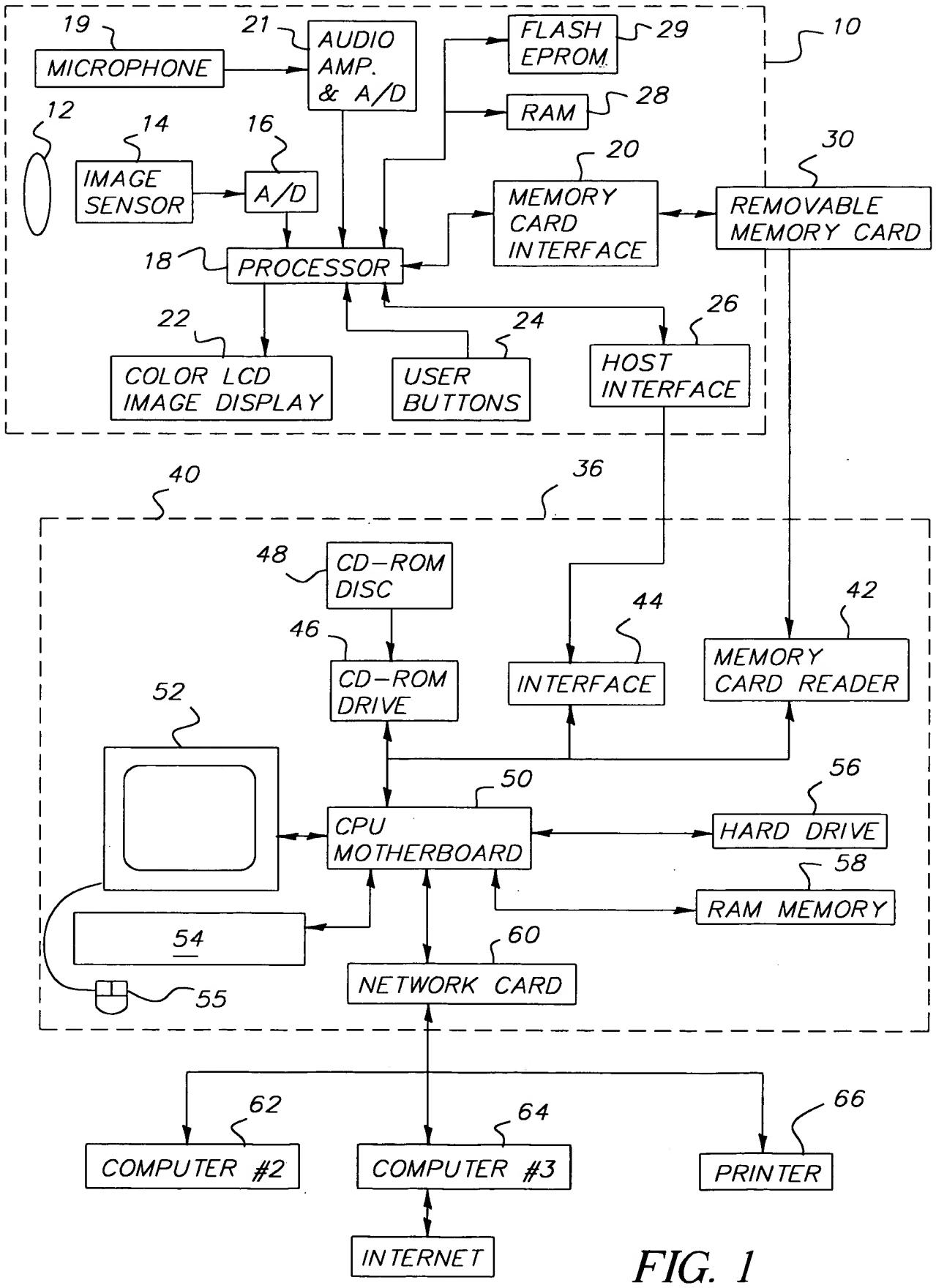
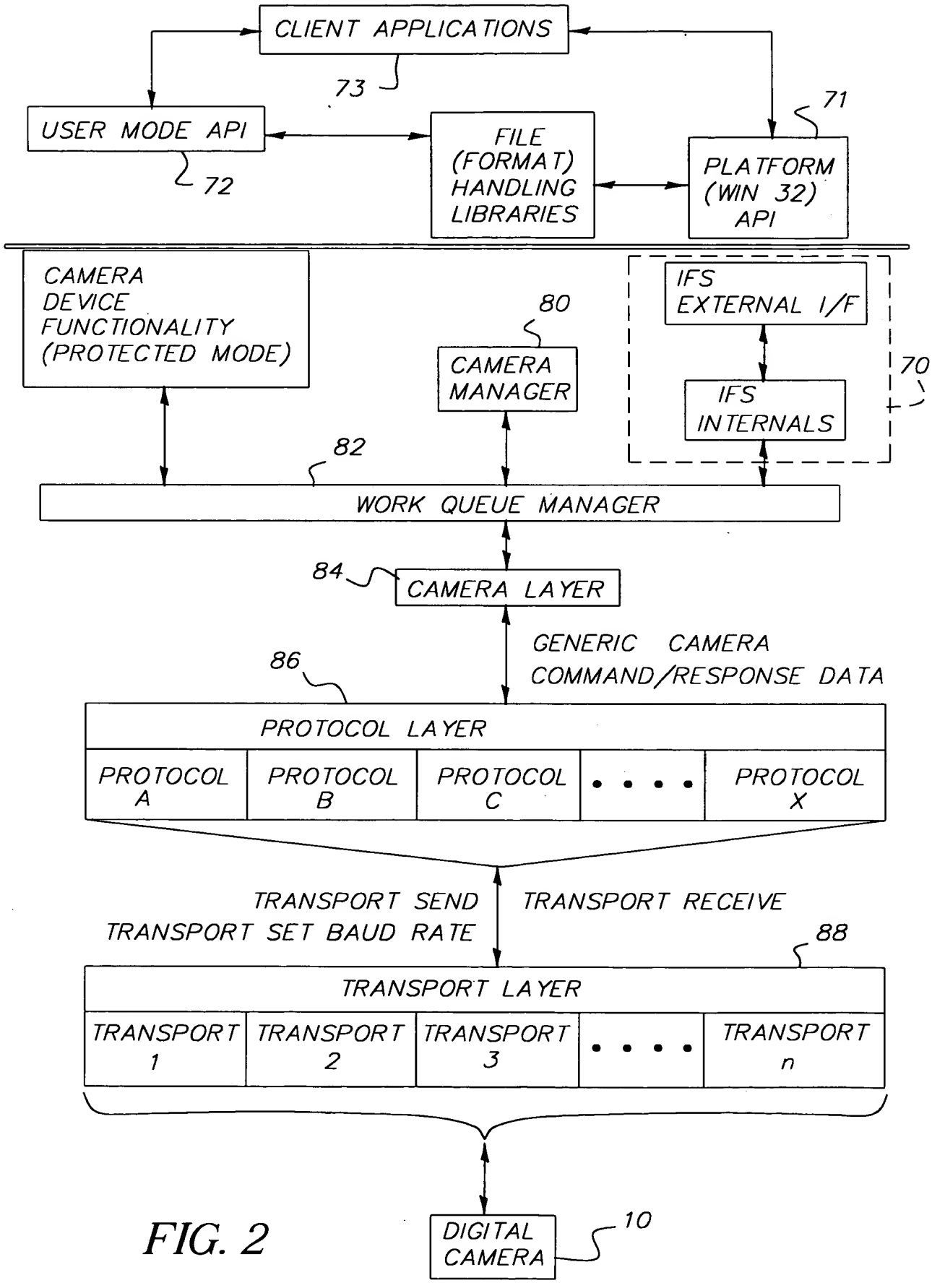

19
MICROPHONE
21
AUDIO AMP. & A/D
FLASH EPROM
29
10
RAM
28
12
14
IMAGE SENSOR
16
A/D
20
MEMORY CARD INTERFACE
30
REMOVABLE MEMORY CARD
18
PROCESSOR
22
COLOR LCD IMAGE DISPLAY
24
USER BUTTONS
26
HOST INTERFACE
40
36
48
CD-ROM DISC
46
CD-ROM DRIVE
44
INTERFACE
42
MEMORY CARD READER
52
50
CPU MOTHERBOARD
56
HARD DRIVE
58
RAM MEMORY
54
55
60
NETWORK CARD
62
COMPUTER #2
64
COMPUTER #3
66
PRINTER
INTERNET

FIG. 1


CLIENT APPLICATIONS
73
USER MODE API
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FILE (FORMAT) HANDLING LIBRARIES
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PLATFORM (WIN 32) API
CAMERA DEVICE FUNCTIONALITY (PROTECTED MODE)
80
CAMERA MANAGER
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84
CAMERA LAYER
GENERIC CAMERA COMMAND/RESPONSE DATA
86
PROTOCOL LAYER
PROTOCOL A
PROTOCOL B
PROTOCOL C
PROTOCOL X
TRANSPORT SEND
TRANSPORT SET BAUD RATE
TRANSPORT RECEIVE
88
TRANSPORT LAYER
TRANSPORT 1
TRANSPORT 2
TRANSPORT 3
TRANSPORT n
DIGITAL CAMERA
10

FIG. 2

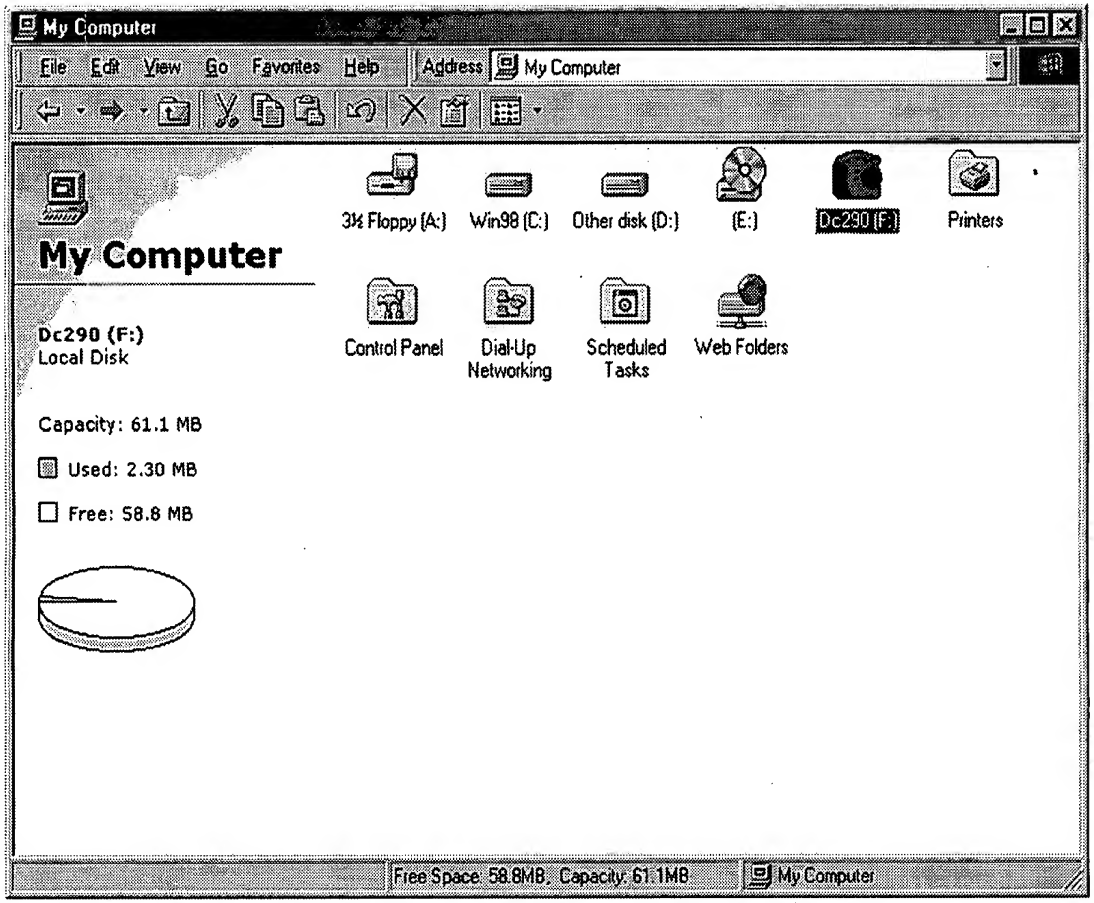
My Computer
File Edit View Go Favorites Help
Address My Computer
My Computer
Dc290 (F:)
Local Disk
Capacity: 61.1 MB
Used: 2.30 MB
Free: 58.8 MB
3½ Floppy (A:)
Win98 (C:)
Other disk (D:)
(E:)
Dc290 (F:)
Printers
Control Panel
Dial-Up Networking
Scheduled Tasks
Web Folders
Free Space: 58.8MB, Capacity: 61.1MB
My Computer

Fig. 3A

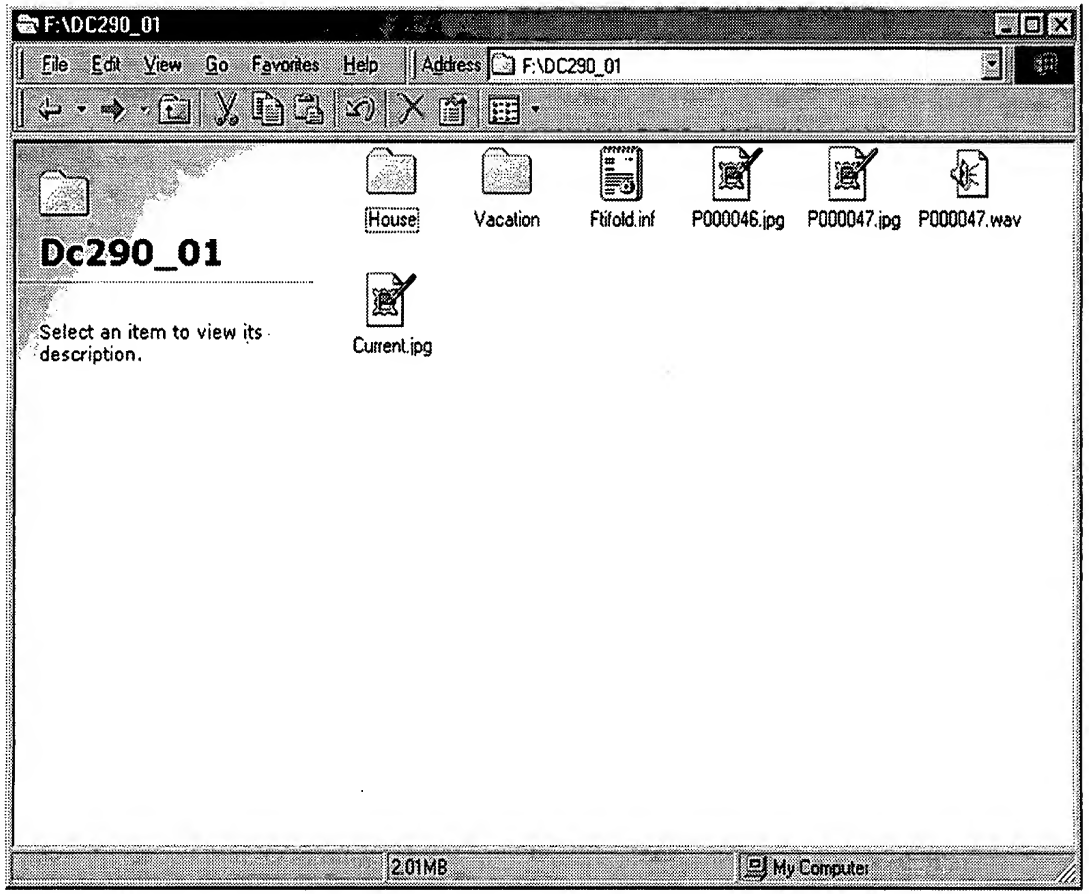
F:\DC290_01
File Edit View Go Favorites Help
Address F:\DC290_01
Dc290_01
Select an item to view its description.
House
Vacation
Ftifold.inf
P000046.jpg
P000047.jpg
P000047.wav
Current.jpg
2.01MB
My Computer

Fig. 3B

100a

IMAGE FILE

SOI	START OF IMAGE
APPI	APPI SEGMENT WITH EXIF METADATA
DQT	QUANTIZATION TABLES
DHT	HUFFMAN TABLES
SOF	FRAME HEADER
	COMPRESSED MAIN IMAGE DATA
EOI	END OF IMAGE

STRUCTURE OF APPI SEGMENT

APPI MARKET
EXIF IDENTIFIER
TIFF HEADER
CAMERA MAKE
CAMERA MODEL
IMAGE ORIENTATION
EXPOSURE TIME
F/NUMBER
DATE/TIME CAPTURED
COMPRESSION LEVEL
SUBJECT DISTANCE
FOCAL LENGTH
THUMBNAIL IMAGE DATA

FIG. 4A

100b

IMAGE FILE

SOI	START OF IMAGE
APPI	APPI SEGMENT WITH EXIF METADATA
APP2	APP2 SEGMENTS WITH EMBEDDED AUDIO WAVE FILE
DQT	QUANTIZATION TABLES
DHT	HUFFMAN TABLES
SOF	FRAME HEADER
	COMPRESSED MAIN IMAGE DATA
EOI	END OF IMAGE

STRUCTURE OF APPI SEGMENT

APPI MARKET
EXIF IDENTIFIER
TIFF HEADER
CAMERA MAKE
CAMERA MODEL
IMAGE ORIENTATION
EXPOSURE TIME
F/NUMBER
DATE/TIME CAPTURED
COMPRESSION LEVEL
SUBJECT DISTANCE
FOCAL LENGTH
THUMBNAIL IMAGE DATA

STRUCTURE OF APP2 SEGMENT

APP2 MARKER
FPXR INDENTIFIER
CONTENT LIST
APP2 MARKER
FPXR INDENTIFIER
WAVE FORMAT AUDIO DATA

FIG. 4B